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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/815,748	04/02/2004	Marc Buonomo	P25115	1554

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GREENBLUM & BERNSTEIN, P.L.C.  
1950 ROLAND CLARKE PLACE  
RESTON, VA 20191

EXAMINER

PRAKASAM, RAMYA G

ART UNIT PAPER NUMBER

3651

DATE MAILED: 12/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/815,748

Applicant(s)

BUONOMO, MARC

Examiner

Ramya G. Prakasam

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 12-50 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 12-50 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 04/02/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 13 and 14 are objected to because of the following informalities: Claims 13 and 14 appear to be the same claim. Appropriate correction is required.
2. Claim 28 is objected to because of the following informalities: The portion of the claim reciting “wherein the first and second movable elements slidable engage surfaces of the elongated channel” is unclear. Does the applicant mean that the first and second movable elements slidably engage surfaces? Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 12-41 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. Claim 12 recites the limitation “the first movable element” where no “first movable element” was previously defined. There is insufficient antecedent basis for this limitation in the claim.
4. Claims 13 and 14 recites the limitation “the first mobile element” whereon “first mobile element” was previously defined. There is insufficient antecedent basis for this limitation in the claim.
5. Claims 41, 44-48 and 50 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for including both a product and a process in the same claim. A single claim that

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claims both an apparatus and the method steps of using the apparatus is indefinite (See M.P.E.P. 2173.05(p)). In particular, the claims specify a method that is dependant on an independent apparatus claim. Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 12--50 are rejected under 35 U.S.C. 102(b) as being anticipated by Lecrivain (U.S. Patent Application Publication No. 2002/0056608).

Lecrivain discloses an arrangement for moving a heavy load, the arrangement comprising:

- At least one actuating unit (4, 4');
- The at least one actuating unit comprising a support for supporting the heavy load (See Figures 3-5);
- The support being immobile along a horizontal direction (See Paragraph 56 – fixed body);
- The first movable element (1) being slidable relative to the support in a reciprocating manner such that the reciprocating movement of the first movable element causes the first movable element to move horizontally and vertically (See Paragraph 44 and 45);

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- A second movable element (2, 21, 22, 23, 24 – recovery stations) supported by the first movable element and being adapted to slide relative to the first moveable element in reciprocating manner;
- An arrangement (5 – See Paragraph 67) for controlling sliding movements of the first and second movable elements,
- Wherein the sliding movements comprise:
  - A first phase in which the first movable element slides along a direction, moves in an upward direction, thereby raising the second movable element, which is substantially immobilized in the horizontal direction and wherein the second movable element lifts the heavy load from the support (See Paragraph 44);
  - A second phase in which the first movable element is substantially immobilized and the second movable element, along with the heavy load supported thereby, slides along a direction of intended movement for the heavy load (See Paragraph 49);
  - A third phase in which the first movable element slides in a downward direction, thereby lowering the second movable element, which is substantially immobile in the horizontal direction and lowers the heavy load onto the support (See Paragraph 44 and 49); and
  - A fourth phase in which the first movable element is held substantially immobile and the second movable element slides along a direction opposite to a direction of the movement of the load (See Paragraph 39-41).

- Wherein the heavy load is adapted to move in the same horizontal direction as the first mobile element (See Paragraph 44 – the first mobile element moves forward and backward in the direction of conveyance).
- Wherein, at the end of the fourth phase, the first and second movable elements are arranged in the same position as in the beginning of the first phase (See Paragraph 48 – when lowered, returns to the same position so that the load can be placed on the station again).
- Wherein, relative to the first phase, the first movable element slides in an opposite direction in the third phase (See Paragraph 45 – raised and lowered positions).
- Wherein, relative to the second phase, the second movable element slides in an opposite direction in the fourth phase (See Paragraphs 39 – 41 – transverse movement of the second movable element).
- Wherein the support comprises two walls (outer edges of 36 – see Figures 4 and 5) for simultaneously supporting the heavy load, and a channel (See Figures 4 and 5) arranged between the two walls.
- Wherein each of the two walls comprises an upper edge (upper portion of 36 – See Figures 4 and 5).
- Wherein the support is elongated substantially in a direction of movement of the first movable element (See Figures 3- 5).
- Wherein the support houses the first and second movable elements (See Figures 3-5).
- Wherein the first and second movable elements slide within a channel of the support (See Figures 3-5 – movement is within the support structure).

- Wherein the at least one actuating unit is structured and arranged to assume a variable gradient relative to the horizontal direction (See Paragraph 56 – longitudinal plane).
- Wherein the first movable element moves towards the second movable element in the first phase (See Paragraph 45 – second movable element is lifted with the first movable element).
- Wherein the second movable element moves towards the first movable element in the second phase (See Figure 1 – the second movable element moves toward 30-33, which is toward the first movable element).
- Wherein the first movable element moves away from the second movable element in the third phase (See Paragraph 49 – the first movable element is lowered whereas the second movable elements are placed on the transversal plane).
- Wherein the second movable element moves away from the first movable element in the fourth phase (See Paragraphs 39-41 and 49 – second movable element moves transversely back to its original position).
- Wherein the support comprises two walls having upper edges for simultaneously supporting the heavy load, the two walls defining between them an elongated channel, wherein the first and second movable elements slidable engage surfaces of the elongated channel (See Figures 3-5 – wall extends from the outer edges of 36 through the edges of the housing).
- Wherein the at least one actuating unit further comprises at least two hydraulic jacks (See Paragraph 56).

- ❑ Wherein the at least two hydraulic jacks are arranged horizontally to support the heavy load (See Figure 1).
- ❑ Wherein the arrangement for controlling sliding movements of the first and second movable elements comprises first and second hydraulic jacks (See Paragraph 56).
- ❑ Wherein the first hydraulic jack is structured and arranged to move the first movable element and wherein the second hydraulic jack is structured and arranged to move the second movable element (See Paragraph 58 – the second movable element is moved when the first movable element is raised and lowered – therefore the hydraulic jacks move both the first movable element and the second movable element).
- ❑ Wherein the at least one actuating unit comprises at least two horizontally spaced apart actuating units (See Figure 1).
- ❑ Wherein the arrangement for controlling sliding movements of the first and second movable elements is structured and arranged to synchronise movements of the first and second movable elements of the at least two horizontally spaced apart actuating units (See Paragraph 58).
- ❑ Wherein the heavy load and the first movable element are adapted to move along a direction which has the same horizontal component (See Paragraph 44 – the first movable element moves forward and backward).
- ❑ Wherein the at least one actuating unit comprises at least two horizontally spaced apart actuating units located in the vicinity of one another (See Figure 1).
- ❑ Wherein the arrangement for controlling sliding movements of the first and second movable elements is structured and arranged to synchronise movements of the first



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and second movable elements of the at least two horizontally spaced apart actuating units (See Figure 1 and Paragraph 58).

- Wherein the arrangement for controlling sliding movements of the first and second movable elements of each of the at least two horizontally spaced apart actuating units comprise first and second actuating devices (See Paragraphs 56-58).
- A control device for synchronizing movements of the first and second movable elements of each of the at least two horizontally spaced apart actuating units (See Paragraphs 56-58).
- Wherein the first movable elements of the at least two horizontally spaced apart actuating units are oriented in opposite directions and wherein the second movable elements of the at least two horizontally spaced apart actuating units are oriented in opposite directions (See Figure 1).

Lecrivain further discloses a method utilizing the arrangement above, comprising:

- Arranging the at least one actuating unit beneath the heavy load (See Figure 3); and
- Performing the first, the second, the third, and the fourth phases consecutively, whereby the heavy load is moved (See Paragraphs 22-30)

Lecrivain also discloses an arrangement for moving a heavy load, the arrangement comprising:

- At least one actuating unit (4, 4');
- The at least one actuating unit comprising a support for supporting the heavy load;
- A plurality of jacks coupled to the support (See Paragraph 56);

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- A first movable element (1) adapted to slide within a channel of the support (See Paragraph 44);
- The first movable element being movable in reciprocating manner such that the reciprocating movement of the first movable element causes the first movable element to move horizontally and vertically (See Paragraph 45);
- A second movable element (2, 21, 22, 23, 24) adapted to slide within the channel of the support (See Figures 3-5);
- The second movable element slidably engaging the first movable element and being movable in reciprocating manner towards and away from the first movable element (See Paragraphs 39-41 and 49); and
- An actuating system for controlling sliding movements of the first and second movable elements (See Paragraphs 56-58).
- Wherein the actuating system comprises first and second actuating devices (See Figure 1 – two hydraulic jacks).

Lecrivain further discloses a method of lifting the load using the arrangement above, comprising:

- Sliding the first movable element along a first direction, wherein the sliding causes the first and second movable elements move in an upward direction, and wherein the heavy load is lifted from the support with the second movable element (See Paragraph 45).

- During the sliding of the first movable element along the first direction, ensuring that the second movable element is substantially immobilized relative to the horizontal direction (See Paragraph 45);
- Sliding the second movable element, along with the heavy load supported thereby, along a second direction such that the heavy load is caused to move upwards (See Paragraph 45);
- During the sliding of the second movable element along the second direction, ensuring that the first movable element is substantially immobilized relative to the horizontal direction (See Paragraph 47 – immobilized when the second movable element is centered);
- Sliding the first movable element along a third direction such that the first and second movable elements move in a downward direction (See Paragraph 48);
- During the sliding of the first movable element along the third direction, ensuring that the second movable element is substantially immobilized relative to the horizontal direction (See Paragraph 49);
- Sliding the second movable element along a fourth direction such that the second movable element is substantially immobilized relative to the horizontal direction (See Paragraphs 48-49);
- Sliding the second movable element along a fourth direction such that the second movable element moves in a downward direction (See Paragraph 39-41); and

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- During the sliding of the second movable element along the fourth direction, ensuring that the first movable element is substantially immobilized relative to the horizontal direction (See Paragraph 49).
- Wherein the first direction is opposite the second direction (See Paragraphs 44 and 45 – first direction is vertical and second direction is horizontal).
- Wherein the third direction is opposite the fourth direction (See Paragraphs 44 and 45 – third direction is vertical and fourth direction is horizontal).
- Wherein the first and third directions are the same (See Paragraphs 44 and 45 – both directions are vertical).
- Wherein the second and fourth directions are the same (See Paragraphs 44 and 45 – both directions are horizontal).

Lecrivain also discloses an arrangement for moving a heavy load, the arrangement comprising:

- At least one actuating unit (4, 4');
- The at least one actuating unit comprising a support for supporting the heavy load (See Figures 3-5);
- A plurality of jacks arranged to lift the support (See Paragraph 56);
- A first movable element being movable in a reciprocating manner such that the reciprocating movement of the first movable element causes the first movable element to move horizontally and vertically (See Paragraph 44);
- A first actuating device structured and arranged to move the first movable element in opposite directions (See Paragraphs 56-58);

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- A second movable element adapted to slidably engage the support and the first movable element (See Paragraphs 39-41).
- The second movable element being movable in reciprocating manner towards and away from the first movable element (See Paragraphs 39-41 and 49); and
- A second actuating device structured and arranged to move the second movable element in opposite directions (See Paragraphs 56-58).

Lecrivain further discloses a method of lifting the load using the arrangement above, comprising:

- Sliding the first movable element along a first direction, wherein the sliding causes the first and second movable elements move in an upward direction, and wherein the heavy load is lifted from the support with the second movable element (See Paragraph 45);
- During the sliding of the first movable element along the first direction, ensuring that the second movable element is substantially immobilized relative to the horizontal direction (See Paragraph 45);
- Sliding the second movable element, along with the heavy load supported thereby along a second direction such that the heavy load is caused to move upwards (See Paragraphs 45 and 47-49);
- During the sliding of the second movable element along the second direction, ensuring that the first movable element is substantially immobilized relative to the horizontal direction; (See Paragraph 47)

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- Sliding the first movable element along a third direction such that the first and second movable elements move in a downward direction (See Paragraph 48);
- During the sliding of the first movable element along the third direction, ensuring that the second movable element moves in a downward direction (See Paragraph 49);
- Sliding the second movable element along a fourth direction such that the second movable element moves in a downward direction (See Paragraphs 39-41) and
- During the sliding of the second movable element along the fourth direction, ensuring that the first movable element is substantially immobilized relative to the horizontal direction (See Paragraph 49).

### *Conclusion*

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Please see PTO Form 892 for similar arrangements for moving a heavy load.

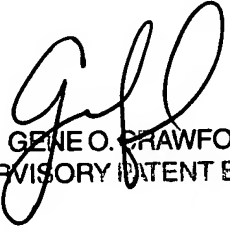
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramya G. Prakasam whose telephone number is (571) 272-6011. The examiner can normally be reached on Monday - Thursday, 8:30am-7pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Crawford can be reached on (571) 272-6911. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

12/10/2006  
RGP

  
GENE O. CRAWFORD  
SUPERVISORY PATENT EXAMINER